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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,687	10/10/2003	Kil Jae Chang	KJC-09	9890

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John R. Flanagan
P.O. Box 2629
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EXAMINER

KUMAR, RAKESH

ART UNIT	PAPER NUMBER
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3654

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/683,687	CHANG, KIL JAE	
	Examiner	Art Unit	
	Rakesh Kumar	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9 and 10 is/are rejected.
- 7) ☒ Claim(s) 8 and 11-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/10/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Final Rejection

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Probasco in view of Dyment (U.S. Patent Number 2,990,084) and Grubb (U.S. Patent Number 4,258,966).

3. Referring to claim 1. Probasco discloses a vending machine (Figure 2) comprising:

(a) an upstanding base housing (16) defining a hollow interior chamber (interior portion of wall 50; Figure 2);

(b) a top platform (60) mounted on said base housing (16) and having a central opening (see member 240 inserted through 60; Figure 2, 6 and 10) defined therein and a radial opening (134; Figure 2 and 4) also defined therein extending radially outward (extending outwards from central shaft) of and spaced from said central opening;

(c) a storage magazine (series of vertical cavities 104 in housing 68) mounted above said top platform (60) and said base housing (16) and having an outer annular row of vertical cavities (104) for receiving and holding in stacked fashion small packages (12) of items to be dispensed from said machine one at a time from a lower opening (108; Figure 3) of a selected one of said vertical cavities (104);

(d) an outer enclosure (68) mounted on said top platform (60) and surrounding said storage magazine and adapted to be manually rotated by a user (Col. 5 line 35-40);

(e) a top cover (74) removably mounted on an upper end of said outer enclosure (68) so as to overlie and close upper openings of said vertical cavities (104) of said magazine and interfit with said outer enclosure (68);

(f) a coupling subassembly (including 76,78 and 80; Figure 6 and 10) disposed centrally through said magazine and through said central opening (see member 240 inserted through 60; Figure 2, 6 and 10) of said top platform (60) and supported by said top platform (60) from below (see molded lip at bottom of 60; Figure 6) said top platform (60) and coupling (member 76; Figure 6) said storage magazine with said top cover (74) and rotatably mounting said storage magazine and said top cover (74) and outer enclosure (68) therewith as a unit for undergoing rotation relative to said top platform (60) and said base housing (16) for disposing the selected one of said cavities (104) over said radial opening (134) of said top platform (60);

(g) a coin-operated dispensing mechanism (30) mounted on said base housing (16) and disposed in the interior chamber (see Figure 1 and 2) thereof and being operable in response to a coin being deposited (in slot 34) therein to enable dispensing of one lowermost package of items at a time from the selected one of said cavities (104) overlying said radial opening (134) in said top platform (60).

Probasco does not teach of a top cover of the vending machine to rotate with the outer enclosure, as the enclosure is rotated.

Dyment teaches of a vending machine apparatus (Figure 1) wherein a support carriage (18) is rotated by an annular ring (114) at the base of enclosure (36), to position a desired vertical column (22) of articles (20) in alignment with the access opening (102) by rotating the annular ring (114), further Dyment teaches a cover (38) mounted to enclosure (36) to protect the articles (20) in the dispenser.

Grubb discloses a rotary storage cabinet (Figure 1 and 3-5) wherein an article enclosure (90) with a cover frame (60 and 30) rotate in unison when rotated about the swivel base (70).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Probasco to include a cover attached to the outer enclosure as taught by Dyment because the cover would protect the contents within the enclosure, and further Dyment teaches that a carriage consisting of an opening can be rotated underneath a fixed cover and enclosure assembly comprising

multiple vertical columns to allows a particular article to be dispensed when a user rotates the carriage assembly to the selected vertical column thus teaching the rotation of either the enclosure of the carriage comprising the opening can be rotated to a position of alignment.

It would have been further obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Probasco in view of Dymont to include a article enclosure with a cover frame that rotates in unison when the enclosure is rotated as taught by Grubb because rotating the larger enclosure to align with a fixed opening would allow for a better grip for the user.

The teaching of Probasco disclose the operation of the vending machine however, Probasco does not specifically disclose that the coins inserted in the vending machine are collected in the station mounted in the base housing.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to specifically include a coin collection station disposed at the base housing of the coin-operated dispensing mechanism such that all coin deposited for operation are collected in a single location because the removal of the coins from the vending machine would be made easier.

4. Referring to claim 2. Probasco discloses a vending machine (Figure 2) comprising:

an outer wall (front side of outer retaining portion of 104; Figure 4) of generally annular configuration;

an inner wall (back side of outer retaining portion of 104; Figure 4) of generally annular configuration disposed within and spaced from said outer wall; and
a plurality of partitions disposed between and rigidly attached to the outer and inner walls and extending generally radially outward with respect to a central longitudinal axis (axis of shaft 240) of said storage magazine such that said partitions are circumferentially spaced apart from one another so as to form with said outer and inner walls a plurality of said elongated vertical cavities (104; Figure 1-3) open at said upper (see Figure 2) and lower ends (110) and being spaced apart from one another and arranged in an annular row circumferentially extending around, above and adjacent to an outer portion of said top platform (60).

5. Referring to claim 3. Probasco in view of Dyment discloses all claimed features of claim 3, but do not disclose a plurality of seats positioned on the top platform comprising ball bearings to support the storage magazine.

However, Grubb teaches of forming a plurality of seats (222; Figure 7-9) recessed in a top surface of a platform (80) at respective locations radially spaced outwardly from and circumferentially spaced about the central opening (from the axis of member 72) in the platform (80); and a set of ball bearings (120) each disposed in one of said seats (222) recessed in the top platform (80) so as to rotatably support the magazine (70) relative to the top platform (80).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Probasco in view of Dymont and include a plurality of seats recessed on the top surface of the platform radially disposed as taught by Grubb because the ball bearing would reduce friction between the platform and the storage magazine.

6. Claims 4,5,9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Probasco in view of Dymont as applied to claim 1 above, and further in view of Stewart (U.S. Patent Number 2,12,183).

7. Referring to claim 4. See Office Paragraph 6 above. Probasco discloses a vending machine (Figure 2) wherein the coupling subassembly (member 76; Figure 6) includes:

elongated hollow rigid tube (80) extending centrally through the magazine (series of vertical cavities 104 in housing 68) and supported at a lower end (lower end of member 80) by a bottom portion of the magazine (member 90; Figure 2) and engaged at an upper end (top end of member 80) with said top cover (74);

a key-operated lock device (246) capable of being releasably tightened onto from the upper end of the rigid rod (82) so as to releasably clamp the rigid tube (80) between the top cover (74) and the storage magazine (series of vertical cavities 104 in housing 68) such that the top cover (74), the magazine and the lower bearing component (bottom flange of member 76; Figure 6) function as a single unit rotatably mounted upon

said top platform (60) for undergoing rotation relative to the top platform (60) and the base housing (16) by a user manually gripping opposite sides of said outer enclosure (68) and turning the outer enclosure (68) in a predetermined angular direction.

Probasco does not disclose the bearing support bracket comprising a first and a second bearing rings coupled to the lower end of the rigid rod on the top cover.

Stewart discloses a vending machine wherein a bearing support bracket (96) supported by a platform (100) below said central opening (opening through which shaft 71 extends) therein;

a bottom bearing ring (92; Figure 3) disposed below the central opening (opening through which shaft 71 extends) of a platform (100) and having a first bearing component (93) fixedly mounted to a bearing support bracket (96) a second bearing component (92) rotatably coupled to said first bearing component (93);

an elongated rigid rod (71) extending through the rigid tube (73) and the bearing support bracket (96) between and attached at opposite upper and lower ends of said rigid rod (71) respective to the top cover (46) and the second bearing component (77; Figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Probasco in view of Dymment and include a bearing support bracket fixedly mounted below comprising a first and a second bearing ring such the elongated tube is free to rotate within the bracket as taught by Stewart,

because the bearing connections along with the elongated tube containing the rigid tube will allow the storage magazine to be rotated with respect to the base with a minimal force.

Regarding claim 5, see Office Paragraph 6

8. Referring to claim 9. Probasco disclose an indexing mechanism (122; Figure 2) disposed in the interior chamber of said base housing (16) and mounted to a bottom surface of the top platform (60), the indexing mechanism being capable of coacting through a hole (see opening through which member 124 engages member 130) in the top platform (60) and with the magazine so as to limit rotation (align, when member 124 is positioned in detent 130) of the magazine and the top cover (as disclosed by Dymont; see claim 1) and outer enclosure therewith through a succession of incremental steps (a series of detents 130 disposed on the magazine) relative to the top platform (60) and the base housing (16). In addition, Probasco discloses a plunger mounting bracket (casing holding member 124 and 126) fixedly attached to the bottom surface of the top platform (60) wherein the plunger (124) undergoes reciprocal movement.

Probasco in view of Dymont do not disclose the indexing mechanism as being a one-way indexing mechanism.

Stewart disclose a one way indexing mechanism (Figure 9 and 11) wherein a teeth shaped projections (145) coact through a hole (86) disposed on the platform (82),

allowing rotation of the platform (82) to be rotated in a single direction (one way indexing).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Probasco in view of Dymment and include a one way indexing mechanism as taught by the Stewart because it would prevent the user from rotating the vending enclosure in reverse.

9. Regarding claim 10, see above, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Probasco in view of Dymment and in further view of Stewart and include a annular row of one way teeth disposed on the bottom of the magazine (instead of circular detents 130) such that the teeth shaped projection (of Stewart) engage the bottom of the magazine to allow only a one way rotation of the vending machine.

10. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Probasco in view of Dymment as applied to claim 1 above, and further in view of Viessmann (U.S. Patent Number 3,680,736).

11. Referring to claims 6 and 7. Probasco in view of Dymment discloses all claimed features of claim 6, but do not disclose a rotatable drum used to dispense packages one at a time.

Viessmann discloses a rotary valve dispenser for tablets (Figure 1) wherein the dispensing mechanism includes a rotatable drum (3) disposed in said interior chamber of a housing below a storage magazine and having an outer cylindrical surface and a recess defined (10) in the outer surface adapted to receive the one lowermost package (4) through an opening from the storage magazine during rotation of the drum (3) in a predetermined direction through a single dispensing cycle in which the recess (10), initially empty, is moved from an initial position (position of recess at the bottom near the outlet; Figure 1) to an intermediate position (position of recess at the top to receive package; Figure 1) where the recess receives the one package (4), and finally back to the initial position, where the package will then drop away from the recess of the drum (3) to a discharge station (2) of machine.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Probasco in view of Dyment and use a dispensing drum as taught by Viessmann disposed in the interior chamber of the base (16; Probasco) such that it is in alignment with the opening in the top platform wherein the package is selectively retained in a recess in the drum and is dispensed when the drum is rotated by the user to dispense the retained package to the outlet because the drum mechanism requires a fewer number of parts thus, reducing manufacturing costs and also reducing the likelihood form product jamming in the process of dispensing.

It would have been further obvious to one of ordinary skill in the art at the time the invention was made to modify the teaching of Probasco in view of Dyment and in further view of Viessmann such that the drum possess only a single recess on the outer

surface to remove the package and thus a complete cycle of the drum must be completed prior to dispensing the second package from the cavity. In addition, the initial position of the recess (three o'clock) can be aligned away from the opening in the top platform because it would allow rotation of the storage magazine when a user is making a selection.

Regarding claim 7, Viessmann discloses the recess in the outer surface of the drum is a reversed L-shaped wedge configuration.

Allowable Subject Matter

12. Claims 8 and 11-14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 06/19/2006 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claim 1-4 have been considered but are moot in view of the new ground(s) of rejection.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rakesh Kumar whose telephone number is (517) 272-8314. The examiner can normally be reached on 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RK
September 1, 2006

A handwritten signature in black ink that reads "Kathy Matecki". The signature is written in a cursive, flowing style.

KATHY MATECKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600